NEW ORLEANS CITY RAILROAD COMPANY: CANAL STATION

(Canal Street Transit Station)
Square 365 bounded by Canal, North Dupre,
Iberville, and North White Streets
New Orleans
Orleans Parish
Louisiana

HAER No. LA-10

HAER LA 36-NEWOR, 104-

#### **PHOTOGRAPHS**

WRITTEN HISTORICAL AND DESCRIPTIVE DATA
REDUCED COPIES OF MEASURED DRAWINGS

HISTORIC AMERICAN ENGINEERING RECORD

National Park Service

Southeast Region

Department of the Interior
Atlanta, Georgia 30303

HAER LA 36-NEWOR, 104-

#### HISTORIC AMERICAN ENGINEERING RECORD

NEW ORLEANS CITY RAILROAD COMPANY: CANAL STATION
(Canal Street Transit Station) HAER No. LA-10

Location:

Square 365 bounded by Canal Street, N. Dupre, Iberville, and N. White Streets,

New Orleans Orleans Parish

Louisiana

USGS New Orleans East Quadrangle, Universal Transverse Mercator

Coordinates: 15.780895.3318510

15.780945.3318580 15.780980.3318550 15.780935.3318480

Dates of Construction:

1861, 1887

Builder: Engineer:

John Pouge (1861) Thomas Sully (1887)

Present Owner:

Regional Transit Authority 101 Dauphine Street at Canal

New Orleans, Louisiana 70112-3125

Present Use:

Vacant. Buildings are scheduled for

removal in 1992.

Significance:

Buildings 1 and 2 at Canal Station were constructed in 1861 and 1887 as carbarns in support of the operation of the New Orleans City Railroad Company. design and construction of buildings 1 and 2, and later modifications to the buildings reflect the evolution of mass transit New Orleans from animal-drawn service, to electric streetcars, to motorized buses. The design and construction of Building 1 is attributed to John Pogue. The modification of building 1 and the design of building 2 are attributed T. Sully. The original structural designs of the carbarns incorporated innovations in long-span construction that eliminated the necessity for interior support columns. The 1861 carbarn utilized a tied-arch truss system, constructed of cast and wrought iron, that frequently was used by the railroad industry for structures requiring clear spans in the mid- to

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late-nineteenth century. A commonly used heavy-timber framed structural system was adopted for the 1887 improvements to the site.

Project Information:

Canal Station will be removed to accommodate the construction of a new transit storage and administration facility. Documentation of the buildings to the standards of the Historic American Engineering Record prior to demolition was prescribed as a stipulation of a project Memorandum of Agreement negotiated between the Federal Transit Administration, the Louisiana State Historic Preservation Office, the Regional Transit Authority, and the Advisory Council on Historic Preservation to mitigate removal of the structures. This documentation was undertaken in 1992 in partial fulfillment of that agreement.

Report Prepared by:

R. Christopher Goodwin & Assoc., Inc. 337 East Third Street
Frederick, Maryland 21701
on behalf of the
Regional Transit Authority
101 Dauphine Street at Canal
New Orleans, Louisiana 70112-3125

Date:

January 8, 1993

Architectural Description. Canal Station is a four-square (block) site in the city of New Orleans that historically has served as a transportation support and service center. 1861, development on the site has been characterized by a utilitarian complex of industrial structures that were erected, modified, removed, or replaced in response to the practical operating requirements of an urban transportation system. Building 1 and Building 2 were constructed during the second half of the nineteenth century as freestanding carbarns to house storage and support services for the operation of the Canal Street streetcar line. The buildings are the oldest structures to survive in the complex and have been modified over the years to accommodate the various technologies -- including animal-drawn service, electric streetcars, and motorized buses -- employed in the city's mass transit system. The remaining components of Canal Station are twentieth century structures erected between ca. 1940 and ca. 1970 to facilitate operation of the city's bus system.

Buildings 1 and 2 currently are incorporated in a three-building garage complex encompassing Building 1, an infill structure, and Building 2. The complex occupies a rectangular 294'-5" by 115'-6" footprint located on a paved urban site. The complex shares portions of a common wall with a contemporary office building located northwest of Building 2. The carbarns retain their structural integrity as independent buildings.

The infill structure, erected in 1968 according to plans developed by the Engineering Department of the New Orleans Public Service, Inc., is a single-story, wood frame building that includes dressing rooms, offices, a storage room, and a rear service yard. The current infill building replaced an earlier structure that was demolished as part of the 1968 construction project.

The exterior of the garage complex was modified in a series of projects undertaken by the New Orleans Public Service, Inc. between 1964 and 1968. The resulting design suggests a contemporary industrial building. Modifications included the installation of exterior cladding, use of a consistent roof treatment, and the addition of a decorative concrete-block screen on the front face of the complex. Alterations also were made to the side facades of the carbarns. Multi-light metal sash windows were removed and the bays were infilled with translucent fiberglass panels. Fixed metal vent panels were installed below alternating bay openings. Exterior walls were clad in corrugated galbestos and asbestos panels; roof planes also were sheathed in corrugated galbestos panels. Wall sheathing was applied directly

to the building frame. Roof planes were punctuated by regularly placed, metal roof ventilators and fiberglass skylight units. Large-scale, metal-frame rolling doors were installed to provide vehicular access from Canal Street. Industrial overhead doors flanked by wooden pedestrian doors were installed to provide access through the rear facade of the complex. Modifications to the exposed frame interiors of the carbarns included the addition of nailers, studs, and cripples to the exposed timber frame wall systems; improvement of mechanic's pits, and the installation of rows of suspended fluorescent-tube lights. Graphic documentation in an 8 1/2" x 11" format depicting plan and facade drawings of the building complex follows this narrative.

Building 1. Building 1 is a large, one-story industrial structure oriented on a northeast-southwest longitudinal axis fronting Canal Street. The structure occupies a rectangular ground plan measuring 294'-5" by 58'-4" and rises to a complex roof incorporating arch and gable forms. The structure is supported by a heavy timber frame structural system terminating in a complex truss system composed of timber and iron members. The interior of the building originally was an unobstructed clear-span; supply rooms were segmented from the rear northwest corner ca. 1960. The clear span design reflects the spatial requirements of the building's continuous industrial use. The structure contains evidence of two phases of major construction (1861, 1887) and one period of major alteration (ca. 1960).

The southwestern end of the building includes portions of the structural frame of the original 1861 station carbarn. Construction of the 1861 carbarn is credited to John Pouge, a local contractor. The 1861 remnant measures approximately 60'-0" by 60'-0"± and includes heavy-timber supports and an all-iron tied arch truss system. This structural system is exposed on the building's interior, as is that of the later addition to the building. No evidence of surviving exterior wall or original roof cladding survives. Original building specifications suggest that the upper reaches of the exterior walls were clad in rough weatherboards while the roof was sheathed with corrugated iron. Lower portions of the exterior wall originally were open.

Framing posts, measuring 10" x 10", are spaced 13'-0"± oncenter along the side walls of the structure. The bases of these elements have been replaced over the years to correct damage caused by termite infestation. Bases were replaced in-kind and are evidenced by scarf-joints; replacement bases are supported by slightly elevated concrete pedestals. The building sill is a discontinuous framing member spanning the space between posts. Original building specifications suggest that the posts are

supported by brick footers. The building originally included a dirt floor; a poured concrete floor was added ca. 1920.

Framing posts are connected to the wall plate by mortised diagonal braces. Each column corresponds to a roof truss. Trusses, which were furnished to the contractor by the New Orleans City Railroad Company, employed wrought iron principals with cast iron shoes. It is likely that the tied arch trusses were fabricated by the company; no maker's or forge mark was uncovered during site investigation.

In the building's tied arch system, the thrust of the arch is maintained by tension in the horizontal lower chords. The trusses are composed of arched top chords that intersect a bottom chord formed by double iron rods. Inspection suggests that railroad track was used to fabricate the top chords. The cast iron shoes are located above the top plate of the exterior walls. Pin connections between top and lower chord provide flexibility in the system and reduce joint stress, as well as enable on-site assembly. Pin connections frequently were employed as fasteners in bridge construction during the period. Rigid riveted joints replaced pin connections ca. 1910.

The web on the roof truss consists of iron rod diagonals and uprights. The truss chords and web create a simple Pratt truss; the Pratt Truss, patented by Caleb and Thomas Pratt in 1844, was applied widely in bridge and building designs through the nineteenth and twentieth centuries. The trusses used in the roofing system of the 1861 section of Building 1 are noteworthy in their complete metal fabrication; pre-Civil War examples frequently combine iron and timber members in their construction.

The roofing system is completed by purlins extending perpendicular to the truss system. Narrow pine boards are carried by the roof purlins creating an arched roof deck. The arched decking appears to be original. Surviving roof framing suggests that the crown of the arched roof was spanned by a continuous louvered monitor. A section of the roof monitor is depicted in a ca. 1905 photograph of the site in the possession of the Historic New Orleans Collection. Documentary evidence indicating the date of removal has not been uncovered.

The 1861 building was incorporated into a larger carbarn following an extensive fire that consumed much of the Canal Station complex in 1887. The expanded structure was erected in 1887 according to designs developed by civil engineer T. Sully. The current footprint of the structure is the result of the 1887 building expansion.

The 1887 addition is a timber-frame structure terminating in a gable roof. The floor of the building originally was dirt. A poured concrete surface incorporating two mechanics' pits that accommodated standard-gauge streetcars was in place by 1923. Modified Warren Trusses, combining metal and iron members, are utilized in the roof of the addition. Wall framing is similar to that found in the 1861 core and utilizes a post-and-beam system. Framing columns are connected to the wall plate by timber diagonal braces. Unlike the system found in the 1861 core, posts in the 1887 addition also incorporate diagonal braces that extend perpendicular to the wall plane and connect the wall post with the lower chord of the roof truss.

The roof trusses are heavy timber framed elements incorporating timber diagonals and iron rod uprights. Common rafters are spaced between roof trusses. Rafters and purlins support the corrugated roof cladding, which is attached directly to framing members. Photographs, dating ca. 1905, suggest that roof ridge of the 1887 addition historically extended to a louvered monitor.

<u>Building 2</u>. Building 2 is a one-story, large-scale industrial building constructed in 1887 according to plans by civil engineer Thomas Sully. The building is identical in structural design to the 1887 addition to Building 1.

The structure is a timber-frame building terminating in a gable roof. The floor of the building originally was dirt. A poured concrete surface incorporating two mechanics pits that accommodated standard gauge streetcars was in place by 1923. Modified Warren Trusses, combining metal and iron members, are utilized in the roof of the addition.

Wall framing is similar to that found in the 1861 core and utilizes a post-and-beam system. Framing columns are connected to the wall plate by diagonal timber braces. Similar to the system found in the 1887 addition to Building 1, posts used in Building 2 also incorporate diagonal braces that extend perpendicular to the wall plane and connect the wall post with the lower cord of the roof truss.

The roof trusses are heavy timber framed elements incorporating timber diagonals and iron rod uprights. Common rafters are spaced between roof trusses. Rafters and purlins support the corrugated roof cladding, which is attached directly to framing members.

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Photographs, dating ca. 1905, suggest that roof ridge historically was punctuated by a series of louvered ventilators. Historic photographs depict Building 2 as an open shed. The gable-end oriented towards Canal Street was sheathed in corrugated iron panels and incorporated double multi-light sash windows. The gable-end and side facade included an intersecting shed roof pent. Hoists extend from the eave line of the side facade.

Sources of Technology: Wide-Span Buildings. The Canal Street station was constructed under the auspices of the New Orleans City Railroad Company, a private firm. The structure's iron clear-span arch truss system represents a utilitarian adaptation of an innovative building technology that was introduced in England and France during the mid-nineteenth century. This construction technique was well-suited for commercial and industrial spaces requiring an abundance of natural lighting and open space, such as markets, arcades, libraries, and train sheds. The advantages of iron construction were its fire-resistance properties and ease of construction, since it could be pre-fabricated in bulk and assembled on site.1 Iron construction in the United States predominated during the mid to late-nineteenth century. All-iron structures were rare before the end of the Civil War; variations in iron and wood were common practice. By 1850, iron rods typically were incorporated into truss frames, but primarily as supplementary members.

The first all-iron and glass dome, Halle aux Bles, was constructed in Paris by Francois-Joseph Belanger in 1813 to cover a circular granary. Fifteen years later, Belanger designed the Galerie d'Orleans (1828), which employed one of the earliest forms of iron barrel vault construction. Henri Labrouste's design for the Bibliotheque Ste.-Genevieve, constructed between 1838 and 1850, was characterized by its cast iron columns and barrel-vaulted arches of scrolled open-work iron. By 1800, the internal iron frame was well-launched in England and frequently was used in early mill buildings designed by Matthew Boulton and James Wyatt. Iron construction was highlighted by Joseph

<sup>&</sup>lt;sup>1</sup>Spiro Kostof, <u>A History of Architecture: Settings and Rituals</u> (New York: Oxford University Press, 1985), 595.

<sup>&</sup>lt;sup>2</sup>Kostof, <u>A History of Architecture</u>, 596.

<sup>&</sup>lt;sup>3</sup>Carl W. Condit, <u>American Building: Materials and Techniques</u> <u>from the First Colonial Settlements to Present</u> (Chicago: University of Chicago Press, 1975), 77.

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Paxton's Crystal Palace, designed for the London Exhibition of 1851. The structure was assembled in six months from prefabricated cast and wrought-iron members and glass.

The most renowned iron structures in England were railroad stations and bridges. John Dobson, an English railway architect, is credited with the initial development of a type of vaulted roof construction of rolled malleable iron for use in railroad sheds during the 1840s. Dobson used this curved roof to cover railroad platforms as well as train terminals. This pioneer design was an appropriate building form for train shed construction and was adapted widely by railroad engineers in both Europe and the United States. Two of the most notable railroad designs are Paddington Station (1852-1854) and St. Pancras Station (1863) in London. Paddington Station, built between 1852 and 1854 by M.D. Wyatt and I.K. Brunel, employed a triple span of bowstring trusses, which spanned 242 feet. St. Pancras Station in London, constructed by Sir Gilbert Scott in 1863, employed an open arched truss system with a clear span of 243 feet.

The use of iron structural members was introduced by William Strickland in Philadelphia in 1820 with the design of the Chestnut Street Theatre. The Providence Arcade in Providence, Rhode Island, one of the earliest intact examples of a barrel vault arcade, possesses a design similar to Belanger's Galerie d'Orleans. Russell Warren and James Bucklin designed the structure in 1828, and incorporated a central vaulted section with cast iron balconies on both sides. George Carstensen and Charles Gildemeister built a Crystal Palace for New York City's 1853 Exposition modeled on this English precedent. The New York model was built entirely of iron and glass, defined by arched trusses under a central dome. The framing of this dome was an

<sup>\*</sup>Kostof, A History of Architecture, 598.

<sup>&</sup>lt;sup>5</sup>Christian Augustus Barman, <u>An Introduction to Railway Architecture</u> (London: Art and Technics, 1950), 18.

<sup>&</sup>lt;sup>6</sup>Kostof, <u>A History of Architecture</u>, 594, 598.

<sup>&</sup>lt;sup>7</sup>Lawrence Grow, <u>Waiting for the 5:05: Terminal. Station.</u> and <u>Depot in America</u> (New York: Main Street/Universe Books, 1977), 42.

<sup>&</sup>lt;sup>8</sup>Kostof, <u>A History of Architecture</u>, 591, 596.

important precedent to structural systems of railroad terminals during the nineteenth century.9

The main requirements of railroad design consisted of the need for an unobstructed floor plan and great height in the center to accommodate railroad cars. Buildings which exceeded thirty feet in width, without the support of columns to carry the weight, would utilize some type of truss design. Railroad builders recognized early the limitations of the traditional triangular truss and resolved that the arch truss structural system best suited these programmatic requirements. 10 Early truss designs incorporated a combination of heavy timber principal members and cast or wrought iron supports. invention of the Pratt and Howe trusses around 1840 provided a stronger, more rigid form which did not require the inclusion of intermediate columns. In 1841, William Howe patented his invention, which came to be the most commonly used truss system for nineteenth century bridges. Its design consisted of parallel chords, diagonals of wood, and vertical tension members of wrought iron. 11 In 1844, Caleb and Thomas Pratt patented their truss system, which was comprised of flat parallel chords, or an arched top chord, with wrought iron diagonal members and wood or cast iron vertical members. The Pratt system utilized all-iron construction or a combination of heavy timber and iron supports and was applied widely in bridge and building designs throughout the nineteenth and twentieth century.

The vaulted, or arched, shed was prevalent in train sheds constructed in the United States during the mid-1800s. These included the New York Central Railroad in Rochester, New York (1853-1855); the President Street Station in Baltimore, Maryland (1850); and the Pennsylvania Railroad Station in Altoona, Pennsylvania. The first vaulted shed constructed in the United States was Philadelphia Station built between 1851 and 1852 by George Parker, the railroad's chief engineer. It included a vaulted roof carried on arched Howe trusses of wood and spanned a width of 150 feet. Numerous other railroad terminals

<sup>&#</sup>x27;Condit, American Building, 85.

<sup>10</sup>Condit, American Building, 48.

<sup>11</sup>Condit, American Building, 61.

<sup>12</sup>Grow, <u>Waiting for the 5:05</u>, 29, 31, and 58.

<sup>13</sup>Condit, American Building, 48.

constructed after the 1860s boasted impressive all-iron clear span truss systems. Grand Central Station's depot in New York City, built in 1869, was modelled after London's St. Pancras Station and represents the first car shed constructed entirely of cast iron. Its arched trusses, fabricated of imported metal by Architectural Iron Works of New York, spanned 200 feet and reached a height of 100 feet. IS

The Canal Station required open space to provide for adequate storage of tramcars, as well as construction and repair of equipment. The justification for employing an all-metal truss system was to allow greater light infiltration and ventilation, and to provide an open floor plan with no intermediate columns. However, these were not crucial requirements for its original use; the all-metal truss system may reflect an adaptation of the railroad building's technology for this local mode of transportation. The Canal Station is unusual in terms of its iron truss framing, and represents an innovation in materials and engineering that became the standard for railroad design.

Bistorio Background. Canal Station, comprised of Building 1 and Building 2, occupies a site that has been in continuous use as a transportation support facility since 1861. That year, the New Orleans City Railroad Company constructed a streetcar station and associated buildings to service its Canal Street lines. A series of private railroad companies operated the streetcar line until private railroad operations in New Orleans were consolidated under New Orleans Public Service, Inc. (NOPSI) in 1924. The Regional Transit Authority acquired the facility in 1983. The building underwent a series of modifications and additions as a response to the changing modes of transportation. As a result, Canal Station is representative of the evolution of mass transportation in New Orleans from animal-drawn service to electric streetcars to motorized bus transit.

Evolution of Public Transportation. The prototype for modern urban mass transit, the omnibus, was developed in London at the beginning of the nineteenth century. The omnibus was a horse-drawn, multiple-passenger coach. The multiple passenger approach to urban transportation was adopted and improved upon in New York City where the omnibus was adapted to narrow gauge rail tracks. In 1831, the New York and Harlem Railway opened the

<sup>14</sup>Grow, Waiting for the 5:05, 38.

<sup>15</sup>Grow, Waiting for the 5:05, 42.

country's first urban railway. 16 Rail service provided a smoother ride and quicker service than omnibuses. Because the carlines extended down the middle of streets, minimal interference with other traffic occurred. Despite these advantages, few cities adopted this new mode of transportation during the early years of its development. 17

New Orleans became only the second city in the United States to establish a street railway when the Louisiana state legislature chartered the New Orleans and Carrollton Railroad Company in 1833. Like its New York counterpart, the New Orleans system utilized omnibuses mounted on narrow-gauge railroad The original inter-city railroad line consisted of a four-mile stretch, extending from downtown New Orleans to the suburb of Carrollton. In 1835, the company established the Carrollton street railroad route along present-day St. Charles Avenue. Passenger cars on this route were driven by steam engines. However, steam engines were ill-suited for street traffic since they were expensive and dirty, and mule-drawn rail cars remained the primary technology used for the urban transportation system until the 1900s. During the antebellum period, the New Orleans and Carrollton Railroad Company operated four street railroad lines supplemented by conventional street omnibuses. 18 As a result of the city's growing population, the horse-drawn omnibus could not compete with increasing demand, and the street railway was introduced between 1861-1867.

The success of the New Orleans and Carrollton Railroad Company prompted the organization of competing transit companies. Among these was the New Orleans City Railroad Company, developer of the Canal Station site. The New Orleans City Railroad Company incorporated six additional routes to the city's system in 1861, the year that Louisiana joined the Confederacy. The metal tracks measured 5' 2-1/2" gauge and the mule cars were built by the Stephenson Car Company of New York City, the largest tram car enterprise. The company designed an innovative lighter, one-horse tramcar, the "bobtail", which was first introduced on the

<sup>&</sup>lt;sup>16</sup>William D. Middleton, <u>The Time of the Trolley</u> (Milwaukee: Kalmbach Publications, 1967), 12-15.

<sup>&</sup>lt;sup>17</sup>George Rogers Taylor, "The Beginnings of Mass Transportation in Urban America, Part II," <u>The Smithsonian Journal of History</u> 1 (Summer, 1966):47.

<sup>&</sup>lt;sup>18</sup>Louis C. Hennick and E. Harper Charlton, <u>The Streetcars of New Orleans</u> (Gretna: Pelican Publishing Company, 1975), 4-9.

streets of New Orleans<sup>19</sup>. During this phase, the Canal Station and three additional carbarns were constructed to service this new mode of transportation. Although other urban railroads established routes during the postbellum years, the New Orleans City Railroad dominated public transportation in the city. The company employed more than 400 men and claimed ridership of twelve million passengers in 1874. In 1883, the New Orleans City Railroad was reorganized as the New Orleans City and Lake Railroad Company. Do

During the second half of the nineteenth century, animal-drawn railroads grew in popularity in cities throughout the United States and by 1859 were operating in Philadelphia, Baltimore, Pittsburgh, Chicago, and Cincinnati. However, animals posed numerous problems as a primary power source. Horses and mules were slow, achieving speeds of less than six miles per hour, and they averaged only four to five hours of work each day. Animals tired quickly, and had difficulty climbing steep grades. They required an entourage of blacksmiths, stablekeepers, and veterinarians. Animals also incurred significant expense, as companies owned up to eight times as many horses or mules as streetcars, and animals consumed large amounts of feed. Maintaining healthy stock presented difficulties, especially following the wide-spread equine respiratory disease that spread through North America in 1872.<sup>21</sup>

The mid-1800s represented a steady period of technological innovations and, due to factors of cost and efficiency, horsedrawn vehicles soon were replaced by alternative modes of transportation. Steam engines, ammonia-driven engines, and battery-powered cars, were explored during the 1870s-1880s to eliminate the disadvantages posed by draft animals. The New Orleans City Railroad also experimented with a car powered by men manipulating reduction gears. General George F. Beauregard experimented with an overhead gripping cable for his New Orleans and Carrollton Railroad; however, that system never was employed

<sup>&</sup>lt;sup>19</sup>R.J. Buckley, <u>A History of Tramways: From Horse to Rapid</u>
<u>Transit</u> (Vermont: David and Charles, Inc., 1975), 21.

<sup>&</sup>lt;sup>20</sup>Hennick and Charlton, <u>The Streetcars of New Orleans</u>, 11,17, 45-46.

<sup>&</sup>lt;sup>21</sup>George W. Hilton and John F. Due, <u>The Electric Interurban</u> Railways in America (Stanford, California: Stanford University Press, 1960), 4.

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due to a tendency towards derailment.<sup>22</sup> Andrew S. Hallidie invented a successful method in 1873 for San Francisco's cable system, and was followed by major American cities by the 1880s.<sup>23</sup> Electricity offered the most feasible alternative to mules and horses. During the 1880s, pioneers in electric traction experimented with methods of powering cars from a centralized overhead or ground level source. The promoters of electric traction systems faced the practical problems of refining the technology to enable streetcars to climb steep grades and negotiate curves. In addition, simultaneous operation of multiple cars within a system was desirable.<sup>24</sup>

Frank J. Sprague, a naval officer who served as an assistant to Thomas A. Edison, founded the Sprague Electric Railway and Motor Company in 1884. In 1887, Sprague contracted with the city of Richmond, Virginia, to develop an economical and dependable 30 car electric streetcar system. The Sprague project resulted in important technological advancements in electric transit systems. Sprague and his associates introduced reduction gears designed to climb hills, improved motor brushes, implemented more efficient motor placement in streetcars, and improved power distribution By May 1888, Sprague's 30-car system was in operation. The success of the Richmond system persuaded the city of Boston to establish an electric traction transit system, operated by the West End Street Railway Company. Other cities followed rapidly; 154 electric systems were in operation by the end of 1889.25 As the 1890s progressed, engineering developments for electrified streetcars proliferated. By 1902, 97 per cent of street railways were electrically operated. 26

<sup>&</sup>lt;sup>22</sup>George Woodman Hilton, <u>The Cable Car in America</u> (Berkeley: Howell-North Books, 1971), 17.

<sup>&</sup>lt;sup>23</sup>Hilton and Due, <u>The Electric Interurban Railways in America</u>, 5.

<sup>&</sup>lt;sup>24</sup>Middleton, The Time of the Trolley, 60-65.

<sup>&</sup>lt;sup>25</sup>Harold C. Passer, <u>The Electrical Manufacturers (1875-1900)</u> (Cambridge: Harvard University Press, 1953), 244-247; Stanley I. Fischler, <u>Moving Millions: An Inside Look at Mass Transit</u> (New York: Harper & Row, 1979), 56-27.

<sup>&</sup>lt;sup>26</sup>Hilton and Due, <u>The Electric Interurban Railways in America</u>, 7.

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New Orleans was slow to electrify its lines. Although more than 50 cities boasted electric streetcar systems by 1890, New Orleans did not adopt the new power source until 1893. In that year, the New Orleans and Carrollton Railroad Company introduced electric power on its St. Charles Avenue line, using an overhead electrical system. Other streetcar companies in the city soon converted to the new technology. By 1899, the last mule cars ceased service in New Orleans. Other Streetcar Companies in the city soon converted to the new technology.

The introduction of electricity as a power source was accompanied by improvements in streetcar design. Originally, streetcars were mounted on a single chaise, or truck, which imposed practical limits on the length of the car. Later versions included two trucks; one at the front of the car and one at the back. Although car bodies were constructed of wood, innovations were introduced in standard car design as enclosed cars replaced open ones. Motors, brakes, and control systems developed from simple mechanisms to complex machines that allowed greater safety and control. The nationwide demand for streetcars was filled by such private fabrication firms as J. G. Brill or the St. Louis Car Company.<sup>29</sup>

The first third of the twentieth century represented the peak period of electric streetcar use in New Orleans. Ridership exceeded 87 million passengers in 1919 and surpassed 148 million passengers by 1926. Track milage was expanded to 221 miles; the removal of duplicate routes accounted for the only elimination of lines. Canal Street was a major transportation corridor; five tracks ran along the street until 1930.30

<sup>&</sup>lt;sup>27</sup>Joy J. Jackson, <u>New Orleans in the Gilded Age: Politics and Urban Progress 1880-1896</u>, (Baton Rouge:Louisiana State University Press for the Louisiana Historical Association, 1969), 164.

<sup>28</sup> Middleton, The Time of the Trolley, 23-24.

<sup>&</sup>lt;sup>29</sup>Middleton <u>The Time of the Trolley</u>, 412-427; Alan R. Lind, <u>From Horsecars to Streamliners: An Illustrated History of the St. Louis Car Company</u> (Park Forest, IL: Transport History Press, 1978), 6-11.

<sup>&</sup>lt;sup>30</sup>E. Harper Charlton, "A New Look at New Orleans Public Service Inc." <u>Headlights</u> 20 (November, 1958): 1-2; Hennick and Charlton, <u>Streetcars of New Orleans</u>, 32-38; Middleton, <u>The Time of the Trolley</u>, 251.

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The first challenge to electric streetcars as the preeminent mode of public transportation came with the introduction of the "jitney", or taxi, during the second decade of the twentieth century. During the economic depression that preceded World War I, operating costs for automobiles were less than fares charged by the mass transit systems. The economic advantage of lower motor vehicle operating costs in the prewar years foreshadowed future competition to electric streetcars for the mass transit market.<sup>31</sup>

The success of jitneys prompted the development of motorized passenger buses during the 1920s. While the first mass transit buses were introduced in New York City in 1908, public acceptance of the vehicles was slow. In 1922, only 370 buses were operated by street railway companies nation-wide. This situation changed dramatically during the next two years as economic conditions, routing flexibility, and advancements in technology made buses a practical alternative to streetcar systems. In 1924, streetcar companies nationwide increased their inventory of buses by 1,200 vehicles. During the 1930s, the use of motor buses escalated to the detriment of electric streetcar systems. Streetcar system ridership declined further as private automobile operation increased. World War II temporarily halted the declining streetcar ridership as domestic rationing of such materials as fuel and rubber made automobile and bus operation less feasible. Following the war, use of streetcars in urban centers decreased rapidly.

The first motor buses were introduced in New Orleans in 1924 to supplement existing streetcar service. In the 1930s, following the consolidation of the city's urban transit systems, the New Orleans Public Service, Inc. (NOPSI) began to phase out the city's streetcar lines in favor of buses. In 1932 five streetcar lines were closed; other routes were eliminated following the Depression era. By 1940, buses accounted for 39.5 per cent of NOPSI vehicle miles and 24.9 per cent of its gross revenue. New Orleans Streetcar ridership revived during World War II with the constraints on private automobile travel resulting from domestic rationing during the war years.<sup>33</sup>

<sup>31</sup> Middleton, The Time of the Trolley, 387-389.

<sup>32</sup> Middleton, The Time of the Trolley, 387-389.

<sup>33</sup>Hennick and Charlton, Streetcars of New Orleans, 39-40.

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Following the nationwide pattern, the miles of track encompassed in the New Orleans streetcar system declined at an accelerated pace following World War II. Between 1946 and 1949, the Freret, Jackson, Magazine, Desire, Charles, Claiborne, and Napoleon lines were discontinued. In 1951, the St. Charles-Tulane line closed, and the route of the St. Charles line was reduced. By the early 1950s, the Canal Street and the St. Charles lines were the last in service.<sup>34</sup>

Both the Canal Street and St. Charles lines operated with pre-1924 Brill model streetcars. These cars were the last of their type in operation in the country; popular support existed in the city for their continued preservation. Despite opposition by "Streetcars Desired", a citizens' group, NOPSI discontinued the Canal Street line in May 1964.35 The last streetcar on the Canal Street route ran on the morning of Sunday, May 31, 1964. Overhead power lines were removed that same day and buses were introduced on the established streetcar route.36

The Regional Transit Authority (RTA) assumed control of the city's public transportation system in 1983. Buses are the primary mode of transportation in the RTA system. The St. Charles Streetcar Line, the last extant original route, has been retained in the RTA system. In addition, a new riverfront streetcar route was established by the transportation authority during the 1980s.

Canal Station. Canal Station, located on Square 365 in New Orleans, Louisiana, witnessed the evolution of the New Orleans mass transit system from street railway to bus. The structure adjoins the thoroughfare that historically has been the most prominent commercial street in the city. The square, bounded by Canal, N. Dupre, Iberville (formerly Customhouse) and N. White streets, was purchased by the New Orleans City Railroad Company on June 20, 1860 for the purpose of erecting a streetcar station in service to the firm's proposed Canal Street line. The Canal Street line was one of four planned by the private railroad

Magazine 58 (August, 1952): 82-85; Hennick and Charlton, <u>Streetcars of New Orleans</u>, 39-40.

<sup>&</sup>lt;sup>35</sup>Hennick and Charlton, <u>Streetcars of New Orleans</u>, 42; Charlton, "A New Look at New Orleans Public Service Inc," 1-2.

<sup>&</sup>lt;sup>36</sup>Rod Varney and Eric Anderson, "Canal Street Line Abandoned," Headlights, 26 (June, 1964): 1-2.

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company; these lines established the New Orleans City Railroad Company as a competitor in the city's transportation sector with the New Orleans and Carrollton Railroad Company.<sup>37</sup>

In March 1861, J.B. Slawson and N.P. Simmot of the New Orleans City Railroad Company contracted with John Pouge, a local builder, to erect a complex of structures on Square 365. Building 1 incorporates portions of the 1861 carbarn. The contract specified a completion date of May for the Canal Street carbarn and established a construction budget of \$5,142.00. Other buildings at the Canal Street location that were itemized in the contract included a two-story dwelling house with a one-story kitchen, a stable, shops, and other support buildings.<sup>38</sup>

Pouge was directed to construct the Canal Street buildings in strict accordance with the specifications of the contract. The stipulations pertaining to the carbarn and railroad station provide a detailed schedule of the size and quality of construction materials. The specifications also provide information relative to the original appearance of the carbarn, portions of which are incorporated in Building 1. Under the description of the bricklayer's duties were details for brick footings for the walls and structural columns of the car house. The building requirements specified a painted rough weatherboard cladding for the timber frame carbarn. The structure was supported by 10 x 10 inch sills; 3 x 6 inch wall studs spaced 21" on center were specified. The gable-end of the carbarn incorporated five 12-foot sliding doors with finished jambs and architraves. The roof of the structure was supported by wrought iron principals with cast iron shoes; metal roof members were supplied by the street railroad company. The building terminated in a corrugated iron roof. Tin pipes drained rainwater to a cistern. Construction work was conducted under the supervision of the Engineer of the City Railroad Company. 39

<sup>&</sup>lt;sup>37</sup>William Bell to the New Orleans City Railroad Company, Conveyance Book 83, Folio 451, 20 July 1860, Conveyance Office, Orleans Parish Clerk of Court, New Orleans.

<sup>&</sup>lt;sup>38</sup>Contract between John Pouge and the New Orleans City Railroad Company, 2 March 1861, Papers of Notary Edward Barnett, New Orleans Notarial Archives.

<sup>&</sup>lt;sup>39</sup>Specification of Car-House and Dormitory on Canal Street Line, 2 March 1861, Papers of Notary Edward Barnett, New Orleans Notarial Archives.

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The specifications also reference Station Hall, a two-story dwelling that originally was located in front of the car house directly adjoining Canal Street. The second floor of the station was supported by thirteen 14-foot cast iron columns; the ground floor of the building was open. The station, also referred to as the dormitory, contained second-floor quarters for employees of the company. Access to the upper story dormitory was provided by square wooden stair towers located at the rear of the building. The building, including the towers, terminated in a slate roof. 40

The New Orleans City Railroad Company initiated street rail service on June 1, 1861. On that day, the <u>Daily Picayune</u> exalted the company's network of a "great spider web of roads, commencing on Canal Street, the heart of the city, and extending in almost every direction to the extreme outer limit of the corporation." The Canal Street line of the system officially opened on June 15, 1861, "only as far as the station at the corner of White Street, a distance of nearly two miles." The line was completed to the Half-Way House in August. 42

Canal Station, also known historically as the White Street Station, was one of four facilities constructed to serve the new mule-powered lines. Both cars and animals were housed at the Canal Street location. During the mid-1870s, the site accommodated approximately 70 to 75 mules. The Canal Station carbarn (Building 1) was used for fabrication and repair of mule-drawn cars. Eleven open "excursion" cars were built in the structure between 1872 and 1874. Workers at the Canal Station also mixed mule feed for animals housed at the company's other stations. 43

An illustration of Canal Street in the vicinity of the Canal Station appeared in the magazine <u>Every Saturday</u> following the New Orleans flood of 1871. The illustration depicted the site as defined by a picket fence. The dormitory building was a symmetrical, residential-scale, frame building of simple

<sup>&</sup>lt;sup>40</sup>Specifications, Papers of Notary Edward Barnett, 2 March 1861.

<sup>41</sup> Street Railways Keep Pace with Progress, Times-Picayune, Jan 25, 1937, Centennial Edition.

<sup>42&</sup>quot;Canal Street Line of City Railroads," <u>Daily-Picayune</u>, 15 June 1861.

<sup>43</sup>Hennick and Charlton, The Streetcars of New Orleans, 17.

Italianate style. The first floor of the rectangular-plan building was supported by free-standing columns incorporating capitals. The 10-bay by 2-bay upper story was sheathed in weatherboards. Windows were multiple-light sash units defined by lintels and sills. The building terminated in an intersecting gable roof banded by a wide bracket cornice. Double three-story, wooden stair towers rose from the rear of the building. These towers included wide cornerboards and terminated in pyramidal roofs punctuated by finials. The roofs were further emphasized by elaborate bracket cornices. A small section of the carbarn was included in the illustration and suggests a utilitarian building that terminated in an arched roof. The illustration also suggests that the design of the facility adopted the specialized plan common in railroad stations of the period where station and car sheds were distinct structures.<sup>44</sup>

In 1876, under Ordinance 3565, the city granted permission to the New Orleans City Railroad Company to operate steam dummies on its line from Canal Street to Lake Ponchartrain, as an alternative to animal transportation. A steam excursion "West End Line" was constructed from Canal Street to Carondelet Street that same year. In addition to the mule-driven vehicles, steam locomotives, and passenger coaches were housed at Canal Station until 1898.

In 1883, the New Orleans City Railroad Company was reorganized into the New Orleans City and Lake Railroad Company. By this period, according to the Braun atlas of that year, development of Canal Station expanded to the western half of Square 365 and extended to the adjoining Square 366. A new frame building was constructed on Customhouse Street (present-day Iberville), northwest of the original 1861 station complex, to house steam cars. Steam rail tracks ran from Canal Street directly through a steam carbarn occupying the western half of Square 365 to second steam carbarn located on Square 366.

<sup>&</sup>lt;sup>44</sup>Every Saturday, "Sketches of the Flood in New Orleans" 1871 Print of woodcut in the collection of the Curatorial Division, The Historic New Orleans Collection, 533 Royal Street, New Orleans, Louisiana 70130

<sup>&</sup>lt;sup>45</sup>Ordinance 3565, A.S. 121, <u>Ordinance, Franchises, Grants of Street Trailways and Bus Service from 1835 to Current Dates</u>, 1937.

Designated "horse car" lines ran from Canal Street to the original 1861 carbarn.46

The Sanborn Insurance Map of 1885 contains detailed data on the Canal Station complex. The original complex, located on the eastern half of Square 365, included a dormitory, carbarn, and support structures, and was devoted to the draft animal operation. The two story dormitory building, constructed in 1861 and incorporating second story sleeping rooms and offices, adjoined Canal Street. The open ground floor of the dwelling functioned as a porte-cochere for horse drawn cars entering the adjoining rear one-and-one-half-story carbarn. Data contained in the Sanborn Insurance Maps indicates that the dormitory was connected directly to a rear carbarn. The eastern half of the frame carbarn served as a mule stable, while the western section of the building was designated the "Street Railroad Car House." This western section of the carbarn comprises a portion of Building 1. Structures housing corn mills, power hay cutters, repair shops, a blacksmith, a car painting shop, and a saddler stood behind the carbarn.

The remaining complex was devoted to the support of the steam railroad operation. The western half of Square 365 included a locomotive house with forge, a steam carbarn, coal bin, and a foreman's house and dining room. A second steam carbarn and a one-story storage building were found on Square 36647

City tax assessments for the years 1885-1886 note that the New Orleans City and Lake Railroad Company was assessed \$25,000.00 for real estate and improvements on Square 365. In addition to the real estate, the company was assessed \$10,000.00 for livestock, \$85,000.00 for vehicles, and \$27,000.00 for machinery.

During this period, the Canal Street Line followed a route that originated at Clay Statue and ran along Canal Street to the cemeteries; cars returned by the same route. Numerous companies ran cars along congested Canal Street; each line could be identified by the color of the car and, at night, by the color of

<sup>46</sup>John F. Braun, Atlas of the City of New Orleans, Louisiana (New York: E. Robinson, 1883), Plate 9.

<sup>&</sup>lt;sup>47</sup>Sanborn Map Company, <u>Insurance Maps of New Orleans</u>, <u>Louisiana</u>, Vol. 2 (New York: Sanborn Map Company, 1885), Plate 50.

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its light. The Canal Street Line streetcars were distinguishable by their green color and white light. The line provided regular service to the city, with a streetcar leaving the starting point every seven minutes for the White Street Station, and every 15 minutes to the end of the route.<sup>48</sup>

A fire consumed the Canal Station in 1887. According to the New Orleans <u>Times-Democrat</u>, the blaze that broke out at 2:45 a.m. on January 20 was "one of the hottest, most destructive and brilliant fires that has taken place in this city for years." The conflagration destroyed what was described as the "roundhouse" and the steam car sheds, as well as eight dummies, 16 passenger coaches, and two freight cars. Other buildings swept by the fire included the blacksmith and saddlery shops behind the draft carbarn, and an oil and paint store. Lumber, carts, sacks of horse feed, harnesses, and other equipment stored in the car shed were destroyed. One steam car survived the fire.

Firemen who fought the blaze were commended for their courage in rescuing livestock. R. H. Benners, secretary of the Firemen's Insurance Company, stated that "Chief Thos. O'Connor and Perseverance Fire Company No. 13 deserve the highest praise for heroism in saving the mules from death."

Joe Walker, president of the City and Lake Railroad, estimated the cost of the fire at \$100,000.00. The fire did not interfere with streetcar service. Walker noted that the remaining steam car and other passenger coaches were sufficient to supply the line until replacements were built. Walker was quoted as saying, "We have every facility in our shops to build the coaches, and I have sent for Mr. T. Sully, the civil engineer, to draft the plan and specifications for their construction, as well as for the new roundhouse and car sheds." Previous archival investigations on the Canal Station site have suggested that Walker was referring to noted New Orleans architect Thomas Sully. Biographical entries for Thomas Sully do not include references to the architect working as a civil

<sup>&</sup>lt;sup>48</sup>William Head Coleman, <u>Historical Sketchbook and Guide to New Orleans and Environs</u> (New York: W.H. Coleman, 1885), p. 35.

<sup>49#</sup>A Disastrous Fire, " New Orleans <u>Times-Democrat</u>, 20 January 1887.

<sup>50</sup>mA Disastrous Fire, New Orleans <u>Times-Democrat</u>, 20 January 1887.

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engineer. In addition, Canal Station buildings do not appear among the detailed lists of Sully's architectural work. 51

To replace the damaged complex, the City and Lake Railroad constructed two wood frame, iron-clad carbarns, one of which incorporated portions of the 1861 car house used for animal-drawn vehicles. New support structures also were constructed on Square 365, while Square 366 became a storage lot for old cars. The new construction is reflected in the 1889 city tax assessments for Square 365. The assessment of real estate and improvements leapt from the pre-fire figure of \$25,000.00 to \$40,000.00; the company was assessed an additional \$10,500.00 for animals, \$38,000.00 for vehicles, \$31,500.00 for machinery, and \$82,000.00 for track.

The 1896 Sanborn Map depicts the rebuilt station. The eastern third of Square 365 lot fronting N. White Street was vacant. This area was formerly occupied by the stable section of the 1861 carbarn. The insurance map suggests that the western half of the 1861 dormitory building adjoining Canal Street survived the fire, as did the western section of the rear adjoining carbarn. The extant section of the 1861 carbarn was incorporated into a larger industrial structure that stretched from Canal Street to Customhouse Street. Portions of this expanded building are incorporated in Building 1. The insurance map noted that the exterior of that frame carbarn was iron-clad.

An iron-clad industrial building of similar design, designated the "Car and Dummy Locomotive House," stood west of the expanded 1861 carbarn. Portions of this latter structure are incorporated in Building 2. The land between the two parallel buildings is depicted as vacant. Associated support structures, including a frame dwelling, an oil house, a wood shop, a machine shop, and a blacksmith, lined N. Dupre Street. Square 366 was vacant and utilized for car storage and a rubbish yard. 52

During the late nineteenth century, the New Orleans Traction Company acquired control of the New Orleans City & Lake Railroad,

<sup>&</sup>lt;sup>51</sup>Edwin D. Weber, Letter to Leslie P. Tassin, Louisiana State Historic Preservation Officer, 26 November 1991; Glenn R. Conrad, A <u>Dictionary of Louisiana Biography</u> (New Orleans: Louisiana Historical Association, 1988), p. 775; Obituary, <u>Times-Picayune</u>, 15 March 1939; Thomas Sully Artist File, Curatorial Division, Historic New Orleans Collection.

<sup>&</sup>lt;sup>52</sup>Sanborn Map Company, <u>Insurance Maps of New Orleans</u>, <u>Louisiana, Vol. 1</u> (New York: Sanborn Map Company, 1896), Plate 70.

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owner of the Canal Station. The company ordered electric cars from J. G. Brill, and installed electric power systems. The Canal Street Route, which initiated electric streetcar service in August 1894, became the first electrified New Orleans City & Lake Railroad route. Trolley wires were added to convert the tracks from mule-driven cars to electric street cars. The original Brill electric cars housed in the Canal Station carbarns were seven-window, open-platform vehicles with longitudinal seats. These orange-yellow cars with cream trim contained green route signs. A

Electrification of streetcars in New Orleans was accompanied by route consolidation. In 1899, the New Orleans City and Lake Railroad Company sold its streetcar lines and associated real estate to the New Orleans City Railroad Company in a massive liquidation effort. 55 Property and street railroad track acquired by the new company included the Canal Street and Lake Trains line, and the associated Canal Station. By the turn of the century, four railway companies operated in the city; of these four, the New Orleans City Railroad Company was the largest, with 115 miles of track and rolling stock encompassing 300 cars. The company's closest competitor, the New Orleans & Carrollton Railroad, operated on 40 miles of track. The New Orleans Railways Company was formed in 1902 to lease these four Although the companies retained legal autonomy, both entities were operated under unified management. The New Orleans Railways Company went into receivership in 1905, and was reorganized as the New Orleans Railway and Light Company. name suggests, the new company also provided electrical power to the city.56

During this period of transition, the Canal Street facility underwent minor alterations. Between 1905 and 1908, the two-story building fronting Canal Street was removed. A new two-story office had been constructed fronting Canal Street as an

<sup>55</sup> Hennick and Charlton, Streetcars of New Orleans, 23-24.

<sup>54</sup>E. Harper Charlton, "Street Railways of New Orleans," Interurbans Special No. 17, 13 (April 1955):31.

<sup>&</sup>lt;sup>55</sup>New Orleans City and Lake Railroad Company to the New Orleans City and Lake Railroad Company, Conveyance Book 174, Folio 395, 8 May 1899, Conveyance Office, Orleans Parish Clerk of Court, New Orleans.

Mennick and Charlton, Streetcars of New Orleans, 28-29.

infill structure between the two 1887 carbarns. Two storehouses were constructed behind the office building. Aside from these infill structures, the land between the carbarns remained open. The western carbarn (Building 2) housed operating rolling stock, while the carbarn containing the 1861 component contained repair shops and the car construction operations for the line. Although most streetcars were purchased from national manufacturers, 12 electric cars were fabricated at Canal Station in 1902. Car fabrication was suspended at Canal Station after 1905; however, major repairs were performed at the site until 1910 when repair operations were consolidated at the Magazine Street facility. After 1910, Canal Station was used for storage, minor repairs, and the painting of cars. Station was used for

The New Orleans Railway and Light Company went into receivership in 1919, and in 1922, city transportation, gas, and electric services were consolidated under the New Orleans Public Service, Inc (NOPSI). The New Orleans City Railroad Company continued independent operation until 1925, when NOPSI purchased the company. During the 1920s and 1930s, NOPSI developed a reorganization plan for the transportation system. The company removed or abandoned 76 miles of track, and established 107 miles of bus service. Streetcar use reached its peak year in 1926, when a total of 148 million passengers rode the 26 street railway lines. Five bus lines were established by 1926; during the ensuing years, mass transit passenger figures for streetcar ridership declined as bus service and automobile use increased. 59

Street railway service was disruption in July 1929, as streetcar operating personnel initiated a strike in response to NOPSI's refusal to accept a closed shop provision. Photographic views depicting the Canal Station on July 5, 1929 depict workers picketing the facility. Although streetcar service was restored

<sup>&</sup>lt;sup>57</sup>Exterior View of the Canal Street Streetcar Barn ca. 1905, Curatorial Division, Historic New Orleans Collection; Sanborn Map Company, <u>Insurance Maps of New Orleans</u>, <u>Louisiana</u>, <u>Vol. 2</u> (New York: Sanborn Map Company, 1908), Plate 169; E. Harper Charlton, "Street Railways of New Orleans," 75.

<sup>54</sup> Hennick and Charlton, Streetcars of New Orleans, 29, 203.

<sup>&</sup>lt;sup>59</sup>Hennick and Charlton, <u>Streetcars of New Orleans</u>, 28-31, 38, 45-46; Hugh M. Blain, <u>A Near Century of Public Service in New Orleans</u> (New Orleans: New Orleans Public Service Inc., 1927), 69; New Orleans City Rail Road Company to the New Orleans Public Service, Inc., Mortgage Book 1319, Folio 123, 25 June 1925

in August, a settlement between NOPSI and the American Federation of Labor was not reached until October 10. During 1929, ridership decreased by 40 million passengers from the previous year. 60

Although bus service expanded during the 1930s, the Canal Station complex on Square 365 continued to serve as a streetcar repair and storage facility. A NOPSI Engineering Department plan depicts the tracks and buildings at the Canal Station in 1938. The plan shows tracks leading from Canal Street to the two carbarns and an adjoining car yard. Building 1, located on the eastern side of the square, was outfitted for streetcar repair work with four pits, a hoist pit, an electric hoist, and a jib crane. Building 2, used primarily to house streetcars, contained two pits. A 99-foot long infill structure stood between the two car barns; that structure was divided into a division supplies area, a recreation room, a toilet facility, the superintendent's office, the clerk's room, and a cashier's office. Along N. Dupre street stood a row of buildings associated with car maintenance, including a garage, a store room, an oil room, a paint shop, a carpentry shop, and a wheel grinder pit. General office buildings also were situated at the corner of N. Dupre and Iberville streets. 61

The Sanborn Insurance Map for 1940 depicts development on four city squares; Square 365 was developed most intensively. The office between the two carbarn structures was enlarged. An additional office building, storage room, and locker room were constructed behind the enlarged office between the two carbarns. The westernmost structure still was identified as a streetcar barn, with a capacity of 26 cars, while the eastern structure was designated for streetcar repair, with a capacity of 24 cars. The map identified wood trusses in both buildings; the car barn had an earthen floor, while the car repair building had a concrete floor. An open car yard with a capacity of 30 cars was located east of the repair building. An eight-car carbarn was recorded on Square 366 northeast of Square 365. The increasing dominance of buses was evident, however, in the new bus garage constructed on Square 396, northwest of Square 365. Square 397, west of

<sup>&</sup>lt;sup>60</sup>Hennick and Charlton, <u>The Streetcars of New Orleans</u>, 39; View of NOPSI Strike in front of the Canal Street Streetcar Barn, 5 July 1929, Curatorial Division, Historic New Orleans Collection.

<sup>61</sup>E. Harper Charlton, "Street Railways of New Orleans," 79.

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Square 365, was in use as a bus yard with a capacity of 110 vehicles. 62

The continuing decline of the streetcar had a direct impact on the Canal Street facility by 1944. Building Number 2 was converted into a bus barn, with a capacity for 35 motor vehicles. Building Number 1 remained carbarn for streetcar repair, with a capacity of 24 cars. The single-story office building located between the two buildings, was enlarged again to contain both offices and dressing rooms. 63

In the 1950s, the St. Charles and Canal Street lines were the last streetcar lines in operation. Special interest groups organized to publicize the history of the city's streetcars. A special publication of <u>Interurbans</u> in 1955 celebrated the history of street railways in New Orleans. The Canal Station carbarns were described as "the best known of all barns in the Crescent City." Although the Arabella barn, constructed in 1881, and the Poland Street Barn, built in 1861, also were large extant facilities, the barn at Canal and White Streets boasted the greatest capacity. During this period, cars continued to be maintained and painted at Canal Station, but major rebuilding was no longer undertaken at the Canal Street facility. 64

Despite public interest in streetcars, and a strong preservation campaign initiated by "Streetcars Desired, Inc.," NOPSI discontinued the operation of the Canal Street streetcar line in 1964, citing the agency's ability to improve services through the introduction of buses on the Canal Street route. The elimination of the Canal Streetcar Line in 1964 was reflected in the operation of Canal Station. The facility was converted exclusively to a bus depot and service center. In 1964, NOPSI altered the Canal Street face of the complex through the construction of a facade in front of Buildings 1 and 2. Bay

<sup>&</sup>lt;sup>62</sup>Sanborn Map Company, <u>Insurance Maps of New Orleans</u>, <u>Louisiana</u>, <u>Vol. 2</u> (New York: Sanborn Map Company, 1940), Plate 137.

<sup>&</sup>lt;sup>63</sup>Sanborn Map Company, <u>Insurance Maps of New Orleans</u>, <u>Louisiana. Vol. 2</u> (New York: Sanborn Map Company, 1944), Plate 137.

<sup>&</sup>lt;sup>64</sup>E. Harper Charlton, "Street Railways of New Orleans," 75, 78.

<sup>65</sup>Hennick and Charlton, Streetcars of New Orleans, 203.

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openings on the side facades of the carbarns were infilled. Four years later, NOPSI initiated new construction at the Canal Street site. The existing storeroom/dressing room infill structure located between Buildings 1 and 2 was removed and replaced by a structure containing a toilet and locker room, a tire room, a repair shop, an inspection store room, an A & T storeroom and A & T office, a radio room, and another office. Doorways, providing access between Building 1, the infill structure, and Building 2, were cut in the party walls of the carbarns to facilitate interior circulation in the new complex. 67

NOPSI retained ownership of the city's public transportation operations until the Regional Transit Authority acquired its operation in 1983.68 In 1991, RTA proposed reestablishing streetcar service on Canal Street by 1996. The estimated cost of the project was \$65 million and included the construction of a new terminal at the City Park Avenue terminus of the line, on the neutral ground of Canal Street.69

Canal Station, including Building 1 and Building 2, will be removed to accommodate the construction of a new transit storage and administration facility. Documentation of the buildings to the standards of the Historic American Engineering Record prior to demolition was prescribed as a stipulation of a project Memorandum of Agreement negotiated between the Federal Transit Administration, the Louisiana State Historic Preservation Office, the Regional Transit Authority, and the Advisory Council on Historic Preservation to mitigate removal of the structures. This documentation was undertaken by R. Christopher Goodwin & Associates, Inc. on behalf of the Regional Transit Authority in partial fulfillment of that agreement.

<sup>&</sup>lt;sup>66</sup>Closing Openings Between New Wall and Station, Sheet 1 of 1, Decorative Treatment to Canal Station Addendum No. 1, 7 June 1964, New Orleans Public Service Inc., Engineering Department.

<sup>&</sup>lt;sup>67</sup>Opening and Finish Schedules Plans, Sheet No. 4 of 16, Replacement of Storeroom Shop and Dressing Room and Modification to Stores Area at Canal Street, 15 May 1968. New Orleans Public Service, Inc., Engineering Department.

<sup>&</sup>lt;sup>68</sup>New Orleans Public Service, Incorporated to Regional Transit Authority, Conveyance Book 788B, Folio 794, 30 June 1983, Conveyance Office, Orleans Parish Clerk of Court, New Orleans.

<sup>&</sup>lt;sup>69</sup>Bruce Eggler, Streetcar line proposed for Canal, Loyola. New Orleans <u>Times-Picayune</u>, September 30, 1991.

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